

Perioperative Frailty: The need for a novel and collaborative approach

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Ireland has an ageing population, and over the next 30 years the number of people aged 65 years and over is expected to double (CSO Figures). Increasing numbers of older people are undergoing surgery. Indeed, the surgical population is ageing at a faster rate than the general population and it is estimated that by 2030 one fifth of surgical candidates will be over the age of 75.¹ In Ireland, we know that about 25% of this over 75 cohort is frail.² Frailty is a distinctive syndrome related to, but not exclusively associated with, ageing in which decreased resilience across multiple systems leads to an increased vulnerability to external stressors, resulting in a slower or indeed incomplete recovery following a physiological challenge, including surgery. Multiple studies in the perioperative setting have identified frailty to be independent predictor of adverse clinician reported, patient reported and process related outcomes.³ Frailty is a measurable clinical syndrome and, importantly, is a modifiable state. Identifying those with, and those at risk of, frailty allows for the application of targeted interventions which can minimise the clinical impact of this syndrome. However, many perioperative pathways neither identify frailty nor intervene, and represent a missed opportunity.

We noted with interest the recently published Sprint National Audit Project (SNAP) 3 data which provides granular detail about the prevalence and clinical impact of frailty on outcomes after surgery in the older cohort.⁴

By way of context, the SNAP are administered by the Royal College of Anaesthetists in the United Kingdom to examine important themes in perioperative care. They are intended to provide a 'snapshot' evaluation of clinical activity and patient centred outcomes. The most recent iteration, SNAP 3, was a three stranded project which comprised an observational cohort study describing the prevalence and impact of frailty perioperatively, an organisational survey of perioperative services for the older patient and a clinician survey to characterise workload perioperatively. For the first time, the Republic of Ireland participated in the

organisational survey, with 46 eligible hospitals providing survey responses. ROI data was not reported separately and results cited are for all responding hospitals.

Key findings from SNAP-3 are that frailty, defined by a Rockwood Clinical Frailty Scale (CFS) of ≥ 5 , is common (one in five patients in the cohort study were living with frailty)⁴, that it has a strong effect on perioperative outcomes including an increased morbidity, length of stay and mortality up to 1 year⁵ and that service provision for this population varies substantially and continues to fall short of recommended standards.⁶ Preoperative screening for frailty was implemented in less than a third (28.6%) of preoperative assessment clinics for patients over 60 years of age.

The benefits of preoperative frailty identification in older adults undergoing surgery are manifold and include more individualised assessment, better articulation of surgical risk and shared decision making, the opportunity to identify and treat modifiable risk factors, the prediction of and planning for complications such as delirium and functional decline, and enhanced and early discharge planning with multidisciplinary input.

Comprehensive Geriatric Assessment (CGA) is endorsed by the HSE for the assessment and optimisation of care for older people. CGA is the organised approach to assessing an older patient's physical, functional, psychological and social needs, with the goal of devising a personalised treatment and intervention plan to address any identified or anticipated deficits. The multidomain nature of the frailty syndrome requires a multidimensional treatment plan, which differs from the traditional systems-based approach often employed in secondary care. CGA is an ideal tool for use in this context with a growing body of evidence to support its role in the perioperative setting.⁷

The responsibility for delivering this type of integrated service would be best met by a multi-speciality and interdisciplinary approach. This is an ethos long embedded within all geriatric services and demonstrated perioperatively most effectively in hip fracture services in this country which engage geriatric, anaesthetic, surgical, nursing and allied health colleagues. Applying this "transdisciplinary", collaborative approach to all surgical pathways is an important goal, which has been shown to benefit older patients undergoing emergency laparotomy⁸ as well as major elective surgery⁹. Distributing expertise in frailty recognition and management across specialities is the underpinning principle of developing a sustainable service. In recent years there have been significant developments to support collaborative and cross-specialty education, training and working practices. The Centre for Perioperative Care (CPOC) is a multidisciplinary and multispeciality organisation founded in the UK with the aim of improving the care for people undergoing surgery. They have published guidelines for the care of people living with frailty and undergoing surgery.

We see this multidisciplinary approach reflected in national policies such as the National Integrated Care Programme for Older People which aims to deliver a patient-centred, integrated care pathway at each healthcare contact.

Informed by the recent data derived from SNAP 3, two key opportunities that we wish to highlight are:

The embedding into the preoperative assessment of the older person routine screening for the assessment and management of frailty using a validated tool. The CFS has been widely adopted for this purpose and is a feasible and reliable predictor of adverse outcomes perioperatively including mortality and non-favourable hospital discharge.¹⁰ Those with a score of 5 or more would generally benefit from a customised frailty pathway. Proactive screening for frailty also involves understanding the co-incidence and significance of associated, but distinct, syndromes such as multi-morbidity, polypharmacy and cognitive impairment.

The second is recognising the potential to modify this syndrome throughout the perioperative pathway and age-attuning pathways to allow timely involvement of multidisciplinary teams with frailty expertise who can implement CGA both in the pre and postoperative setting. This involves aligning and, undoubtedly, commissioning services to respond to the needs of those living with frailty and undergoing surgery. This will allow us to best serve people with complex needs. Frailty assessment should not be used as a gate keeper for eligibility to surgery, but rather an opportunity for optimisation.

As the policies that drive our healthcare service respond, it is crucial to reflect on how we can adapt our practice to meet the current, and future, challenge of ensuring that this group of patients with complex health needs derives maximum benefit from interventions which are intended to improve quality of life. Identifying and addressing frailty, and indeed those at risk of frailty, in the perioperative period is an important step to achieving this.

Declarations of Conflicts of Interest:

None declared.

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References:

1. Fowler AJ, Abbott TEF, Prowle J, Pearse RM. Age of patients undergoing surgery. *Br J Surg*. 2019;106(8):1012-8.
2. O'Halloran A MC, Scarlett S, Roe L, Romero-Ortuno R, Kenny R-A,. TILDA Report on Population Estimates of Physical Frailty in Ireland to inform Demographics for over 50s in Ireland during the Covid-19 Pandemic. The Irish Longitudinal Study on Ageing (TILDA); 2020.
3. Lin HS, Watts JN, Peel NM, Hubbard RE. Frailty and post-operative outcomes in older surgical patients: a systematic review. *BMC Geriatr*. 2016;16(1):157.
4. Swarbrick CJ, Williams K, Evans B, Blake HA, Poulton T, Nava S, et al. Characteristics of older patients undergoing surgery in the UK: SNAP-3, a snapshot observational study. *British Journal of Anaesthesia*. 2025;134(2):328-40.
5. Swarbrick CJ, Williams K, Evans B, Blake HA, Poulton T, Nava S, et al. Postoperative outcomes in older patients living with frailty and multimorbidity in the UK: SNAP-3, a snapshot observational study. *British Journal of Anaesthesia*. 2025;135(1):166-76.
6. Swarbrick CJ, Donnelly A, Williams K, Haren A, Evans B, Poulton T, et al. A survey of perioperative medicine services with a focus on provision for older surgical patients in the UK and Republic of Ireland: SNAP-3. *British Journal of Anaesthesia*. 2025;135(1):155-65.
7. Eamer G, Saravana-Bawan B, van der Westhuizen B, Chambers T, Ohinmaa A, Khadaroo RG. Economic evaluations of comprehensive geriatric assessment in surgical patients: a systematic review. *J Surg Res*. 2017;218:9-17.
8. Aitken RM, Partridge JSL, Oliver CM, Murray D, Hare S, Lockwood S, et al. Older patients undergoing emergency laparotomy: observations from the National Emergency Laparotomy Audit (NELA) years 1–4. *Age and Ageing*. 2020;49(4):656-63.
9. Partridge JSL, Harari D, Martin FC, Peacock JL, Bell R, Mohammed A, et al. Randomized clinical trial of comprehensive geriatric assessment and optimization in vascular surgery. *BJS*. 2017;104(6):679-87.
10. Aucoin SD, Hao M, Sohi R, Shaw J, Bentov I, Walker D, et al. Accuracy and Feasibility of Clinically Applied Frailty Instruments before Surgery: A Systematic Review and Meta-analysis. *Anesthesiology*. 2020;133(1):78-95.